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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,978	09/20/2000	Danelle Mary Tanner	SD6483/S93721	8485

7590 10/15/2003

Sandia National Laboratories  
Patent & Licensing Center  
P O Box 5800 - MS-0161  
Albuquerque, NM 87185-0161

EXAMINER
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DAVIS, OCTAVIA L

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/665,978

Applicant(s)

TANNER ET AL.

Examiner

Octavia Davis

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/22/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 3-6 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 12 - 14 are rejected under 102(b) as being anticipated by Gerhard et al.

Regarding claim 1, Regarding claims 1 and 2, Gerhard et al disclose a linear displacement measuring device comprising a substrate 58, a deflection element 62 coupled to a housing 50 at anchor points 68, 70, a force coupler 80, 82 transferring force from an external source to the input site and a distance scale 56 attached to the deflection element 62 (See Cols. 7, 10 and 11, lines 34 - 54, 16 - 29 and 30 - 47, See Fig. 3B).

Regarding claim 2, the deflection element 62 consists of elastomer (See Col. 7, lines 52 - 54).

Regarding claims 12 - 14, element 62 is an integral piece of spring 60 providing a bent element portion (See Col. 10, lines 16 - 29, See Fig. 3B).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in

Art Unit: 2855

the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerhard et al in view of Feichtinger.

Regarding claims 7 - 9, Gerhard et al lack the gauge comprising indicators mechanically coupled to the element. However, Feichtinger discloses a measuring apparatus comprising a scale 3 that works in conjunction with a movable indicator 6 which is coupled to a spring 37 (See Col. 3, lines 3 - 20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gerhard et al according to the teachings of Feichtinger for the purpose of, providing a reading unit for the measuring scale which can be a component of an optical measuring apparatus (See Feichtinger, Col. 1, lines 11 - 18).

Regarding claims 10 and 11, Gerhard et al lack a calibration force input being integral with the force coupler. However, in Feichtinger, spherical surfaces 19, 20 act as first and second coupling parts (See Col. 3, lines 9 - 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gerhard et al according to the teachings of Feichtinger for the purpose of, providing coupling surfaces for the reading unit and the entrainment means (See Feichtinger, Col. 3, lines 18 - 20 and 38 - 40).

### ***Allowable Subject Matter***

5. Claims 3 – 6 are allowed.

### ***Response to Arguments***

6. Applicant's arguments with respect to these claims have been considered but are moot in view of the new grounds of rejection.

Art Unit: 2855

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bobbio et al (5,479,061) teaches a pleated sheet microelectromechanical transducer.

Tabat et al (5,808,384) teaches micromechanical actuators capable of bidirectional and bistable operation.

Elco et al (6,361,327) teaches an interconnect structure for connecting electrical components.

8. Any inquiry concerning this communication should be directed to Examiner Octavia Davis at telephone number (703) 306 - 5896. The examiner can normally be reached on Monday - Thursdays (9:00 - 5:00), Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on (703) 305 - 4816. The fax phone number for the organization where this application or proceeding is assigned is (703) 746 - 4409.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0956.

97

OD/2855

9/29/03

  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
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